Department of Pesticide Regulation

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MEMORANDUM

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SUBJECT: SCOPING FOR THE ENVIRONMENTAL IMPACT REPORT ADDRESSING REGULATION OF DISCHARGES FROM IRRIGATED LANDS

Thank you for the opportunity to comment on the scope and content of the Environmental Impact Report (EIR) on the Central Valley Regional Water Quality Control Board's (Regional Board's) Irrigated Lands Regulatory Program (ILRP). The Department of Pesticide Regulation's (DPR's) comments are presented below.

In its recent notice, the Regional Board asked interested parties to comment on program elements and environmental information to be considered during the development of the long-term ILRP. In that context, DPR has responsibilities, authorities, and programs that would be a potent complement to ILRP elements that address pesticides and potential impairments of beneficial uses in surface or groundwater. Accordingly, reliance on DPR's authorities and programs could be an effective and efficient feature of the Regional Board's long-term ILRP. DPR recommends that EIR explore alternatives for how ILRP can take advantage of a mix of DPR and Regional Board regulatory activities. Details on DPR's mandates, authorities, and programs, and how they may be applied to the Regional Board's ILRP, are provided below. An additional comment is offered that relates to defining ILRP goals in water bodies dominated by agricultural runoff.

Department of Pesticide Regulation's Mandates and Authorities

DPR is the lead agency for regulating the sales and use of pesticides in California and is mandated by State law to protect the environment from adverse effects of pesticide use. Specifically, DPR is mandated to:

- Protect the environment (including surface water and associated habitat) from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides (Food and Agricultural Code [FAC] section 11501).

- Prohibit or regulate the use of environmentally harmful materials and to take whatever steps necessary to protect the environment (FAC section 14102).

- Endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment (FAC section 12824).

State law also provides DPR with specific regulatory tools to fulfill its mandates. These tools include:

Restricted Materials Designations. The Director of DPR shall designate a pesticide a restricted material if the pesticide presents significant hazards to the environment, including drift onto streams and lakes and persistence in soils that leads to contamination of waterways (FAC section 14004.5).

Pesticide Use Permits. To buy or use a restricted material, a person must obtain a permit from the county agricultural commissioner (CAC). If CAC determines that an adverse effect is likely, he or she may deny the permit or condition the permit so that site-specific practices are followed (FAC section 14006.5). In practice, DPR often provides CACs with suggested permit conditions. CACs may follow DPR's suggestions or structure their own restrictions.

Use Requirements. DPR shall adopt regulations that govern the use and possession for restricted materials that are injurious to the environment (FAC section 14005).

County Agricultural Commissioner–Authorized Permits. A CAC is authorized to require a permit for agricultural use within their county of a pesticide that is not designated a restricted material if the CAC first determines that the pesticide would present an undue hazard when used under local conditions (FAC section 14006.6).

Cancellation. DPR may cancel the registration of, or refuse to register, a pesticide that has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment (FAC section 12825).

Suspension. DPR may suspend the registration of a pesticide if the use of the pesticide poses an immediate substantial danger to persons or the environment (FAC section 12826).

DPR has an additional tool described in the Title 3, California Code of Regulations (3 CCR):

Reevaluation. If DPR finds that a significant adverse impact has occurred or is likely to occur, the pesticide involved shall be reevaluated (3 CCR section 6220). Under a reevaluation, DPR may require pesticide registrants to submit additional data to determine the nature or extent of the potential hazard or identify appropriate mitigation measures (3 CCR section 6192).

Examples of How the Department of Pesticide Regulation Protects Water Quality

DPR has demonstrated that it will use its authorities to improve water quality when environmental conditions suggest that pesticide-related water quality objectives are, or may be, exceeded. In fact, DPR's regulatory triggers have been the same as those used by the Regional Board. Resulting regulations and pesticide product reevaluations should play an important role in watershed management plans that may be required after repeat violations of water quality objectives. Specific actions are cited below.

DPR believes that when these actions are fully implemented, some of the Central Valley's most significant pesticide-related impairments to water quality will be resolved. We recommend that the EIR fully explain DPR's programs and offer as an alternative a complementary combination of DPR and Regional Board authorities and programs. Such an alternative, using DPR's authorities over pesticide sales and use and the Regional Board's authorities over discharges of waste, should offer a powerful, efficient, and effective approach to address some of the region's most significant water quality issues.

Reevaluation of diazinon dormant sprays. Diazinon concentrations exceeded water quality criteria recommended by the Department of Fish and Game–the same criteria the Regional Board used later to set its water quality objectives for diazinon. DPR responded by placing diazinon dormant spray products into reevaluation. (Under reevaluation, pesticide registrants are required to submit to DPR additional information on registered products when it has been determined that registered use causes, or is likely to cause, a significant adverse impact). The goal of the diazinon reevaluation is to assure conformity with the Department of Fish and Game criteria and Regional Board water quality objectives. In response, prior to the 2005–06 application season registrants amended use directions on labels of their diazinon dormant spray products in order to reduce transport from sites of application into surface waters. Users are subject to citations and fines if they do not follow these directions. Registrants have also supported studies to demonstrate the effectiveness of management practices. Monitoring results show that diazinon concentrations in high-use watersheds still exceed water quality objectives, so DPR required registrants to identify and implement additional measures that will further reduce diazinon runoff. Registrants are also required to submit monitoring data from receiving waters to demonstrate the effectiveness of the measures. Registrants' responses are pending.

Reevaluation of chlorpyrifos. The triggers and goals of the chlorpyrifos reevaluation are analogous to those of the diazinon dormant spray reevaluation: DPR responded to the same triggers that the Regional Board uses, and the goals are attainment and maintenance of water quality objectives. Chlorpyrifos registrants amended their product labels, requiring users to take additional actions to prevent offsite transport to surface waters. DPR asked registrants to demonstrate the effectiveness of the amendments in high-use watersheds, including the Salinas Valley. If monitoring results show that upgraded labels are inadequate to achieve conformity

with water quality objectives, DPR will expect registrants to implement additional measures and demonstrate their performance.

Reevaluation of pyrethroid insecticides. Research documented that pyrethoid insecticides were present in streambed sediments at concentrations that are toxic to sensitive aquatic organisms. Essentially, the Regional Board's narrative water quality objective for toxicity was violated in water bodies in both agricultural and urban settings. In one of the most extensive and comprehensive reevaluations yet initiated, DPR put into reevaluation 608 products, involving 123 pesticide registrants and 20 pyrethroid active ingredients. It was initiated in Fall 2006, and registrants are required to submit a variety of data, including additional toxicity data on sensitive aquatic organisms, the processes by which pyrethroids are transported from the site of application, and the effectiveness of management practices aimed at reducing or eliminating offsite movement. In an unprecedented action, DPR solicited consultation with Regional and State Board representatives during this reevaluation. The Boards designated staff contacts for the pyrethroid reevaluation, and it is DPR's hope that one of their functions will be to liaison with ILRP.

Dormant spray regulations. In 2006, DPR adopted new regulations that help reduce movement of dormant spray insecticides, including the pyrethroid esfenvalerate and organophosphates like diazinon and chlorpyrifos, into surface waters. The regulations require dormant spray users to apply management practices that reduce aerial drift, obtain written recommendations for use from licensed pest control advisors, and, significantly, use no-spray buffer zones near surface waters.

Groundwater Protection. The Regional Board and the State Water Resources Control Board directed staff to consider in the EIR regulation of discharges to groundwater as well as to surface waters. DPR has been working to protect groundwater from pesticide contamination for many years, and its efforts culminated recently with a set of comprehensive regulations. DPR scientists presented information on this program at meetings of the State and Regional Boards over the last few years. They explained that since 1986, DPR's groundwater protection efforts have been guided by specific mandates that require DPR to compile pesticide monitoring data from groundwater, identify pesticides that have a reasonable potential to leach to groundwater, and prohibit pesticides detected in groundwater due to legal agricultural use unless future contamination could be controlled.

DPR's comprehensive groundwater protection program relies on its compilation of results from pesticide monitoring of groundwater, which now includes more than 1,600,000 records, representing 22,000 wells (over 4,900 of them sampled by DPR staff) throughout California. This compilation, also known as the well inventory, is freely available on DPR's Web site at <http://www.cdpr.ca.gov/docs/gwp>. Using data in the well inventory database, DPR scientists developed the California Vulnerability Model, which identifies areas vulnerable to pesticide

contamination by correlating soil types and hydrologic conditions in areas where pesticides were detected in groundwater. Regulations now define these vulnerable areas (about 2.4 million acres statewide), as well as pesticides that are known to contaminate groundwater following legal agricultural use (i.e. the herbicides atrazine, bentazon, bromacil, diuron, norflurazon, prometon, and simazine). The regulations also specify that if one chooses to use one of these known contaminants in vulnerable areas, specific management practices must be followed to prevent contamination.

Department of Pesticide Regulation's Pest Management Alliance Grant Program. One of DPR's commitments is to support development and implementation of reduced risk pest management practices. DPR's budget was recently augmented to reinvigorate its Pest Management Alliance Grant Program, which fosters implementation and adoption of effective pest management practices that reduce risks to human health and the environment. In its recent grant solicitation notice, DPR specifically encouraged grant proposals that promote implementation of pest management practices that reduce impacts on water quality. DPR expects that as growers become familiar with recently developed pest management strategies, use of pesticides that have historically been problems for water quality (i.e. organophosphates and pyrethroids) will decline.

Continued Interagency Coordination

DPR is impressed with the agreement between the State Board and CACs in Butte and Glenn Counties. Through this agreement, CACs and their staff, who are local agents for enforcing DPR's pesticide regulatory programs, are an important link connecting the regulatory structures of ILRP and DPR. DPR encourages the Regional Board to propose alternatives in its EIR that foster similar agreements with other counties.

Defining Water Quality Goals for Water Bodies Dominated by Agricultural Runoff

During the EIR process, the Regional Board should evaluate alternatives for recognizing in a regulatory context that supply and drainage canals and other constructed water bodies may only support aquatic life to a limited extent and/or for short time periods. This should then lead to the exploration of options for regulating water quality in such water bodies differently than in natural water bodies.

DPR will follow closely the Regional Board's efforts to develop an EIR for its ILRP and will continue to work closely with Regional Board staff to devise a program that efficiently makes the most of Regional Board and DPR authorities to assure that pesticide discharges from irrigated lands comply with water quality objectives.

Thank you for your consideration. If you have any questions or comments, please direct them to Marshall Lee, of my staff, at (916) 324-4269 or <mlee@cdpr.ca.gov>.

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